

AATCTTTTATTTTATCGATGTTAACAAGCTTAGTAATCGATGCCACGTCGAGGGGTGTCGACC
 CACGCGTCCGGGAGTAGGTTGAGCTCGCCTGTTCTCCCATTTGTCAGCCAGTCTATTTCCAG
 ATTGTTTGAACCTTCTCTGGCCGCACAATACAGGAAGGAAGACTAAAGCAGCAAAGGGACCTA
 CAGCGTCTGCAGCATGGGCTGGTTAACTAGGATTGTCTGTCTTTTCTGGGGAGTATTACTTA
 CAGCAAGAGCAAACATATCAGAATGGGAAGAACAATGTGCCAAGGCTGAAATTATCCTACAAA
 GAAATGTTGGAATCCAACAATGTGATCACTTTCAATGGCTTGGCCAACAGCTCCAGTTATCAT
 ACCTTCCTTTTGGATGAGGAACGGAGTAGGCTGTATGTTGGAGCAAAGGATCACATATTTTC
 ATTCGACCTGGTTAATATCAAGGATTTTCAAAGATTGTGTGGCCAGTATCTTACACCAGAAG
 AGATGAATGCAAGTGGGCTGGAAAAGACATCCTGAAAGAATGTGCTAATTTTCATCAAGGTAC
 TTAAGGCATATAATCAGACTCACTTGTACGCCTGTGGAACGGGGGCTTTTCATCCAATTTGC
 ACCTACATTGAAATTGGACATCATCCTGAGGACAATATTTTAAAGCTGGAGAACTCACATTTT
 GAAAACGGCCGTGGGAAGAGTCCATATGACCCTAAGCTGCTGACAGCATCCCTTTTAAATAGA
 TGGAGAATTATACTCTGGAAGTGCAGCTGATTTTATGGGGCGAGACTTTGCTATCTTCCGAA
 CTCTTGGGCACCACCACCCAATCAGGACAGAGCAGCATGATTCCAGGTGGCTCAATGATCC
 AAAGTTCATTAGTGCCACCTCATCTCAGAGAGTGACAATCCTGAAGATGACAAAGTATACTT
 TTTCTTCCGTGAAAATGCAATAGATGGAGAACACTCTGGAAAAGCTACTCACGCTAGAAATAG
 GTCAGATATGCAAGAATGACTTTGGAGGGCACAGAAGTCTGGTGAATAAATGGACAACATTC
 CTCAAAGCTCGTCTGATTTGCTCAGTGCCAGGTCCAAATGGCATTGACACTCATTTTGATGA
 ACTGCAGGATGTATTCTAATGAACCTTAAAGATCCTAAAAATCCAGTTGTATATGGAGTGTT
 TACGACTTCCAGTAACATTTTCAAGGGATCAGCCGTGTGTATGTATAGCATGAGTGATGTGA
 GAAGGGTGTTCTTGGTCCATATGCCACAGGGATGGACCCAACATCAATGGGTGCCTTAT
 CAAGGAAGAGTCCCCTATCCACGGCCAGGAACCTGTCCCAGCAAAACATTTGGTGGTTTTGA
 CTCTACAAAGGACCTTCCTGATGATGTTATAACCTTTGCAAGAAGTCATCCAGCCATGTACAA
 TCCAGTGTTTCCTATGAACAATCGCCCAATAGTGATCAAAACGGATGTAAATTATCAATTTAC
 ACAAATTGTCGTAGACCGAGTGGATGCAGAAGATGGACAGTATGATGTTATGTTTATCGGAA
 CAGATGTTGGGACCGTTCTTAAAGTAGTTTCAATTCCTAAGGAGACTTGGTATGATTTAGAAG
 AGGTTCTGCTGGAAGAAATGACAGTTTTTTCGGGAACCGACTGCTATTTTCAGCAATGGAGCTT
 TCCACTAAGCAGCAACAACATATATTGGTTCAACGGCTGGGGTTGCCAGCTCCCTTTACA
 CCGGTGTGATATTTACGGGAAAGCGTGTGCTGAGTGTTGCCTCGCCCGAGACCCTTACTGT
 GCTTGGGATGGTTCTGCATGTTCTCGCTATTTTCCCACTGCAAAGAGACGCACAAGACGACA
 AGATATAAGAAATGGAGACCCACTGACTCACTGTTTCACTTACACCATGATAATCACCATG
 GCCACAGCCCTGAAGAGAGAATCATCTATGGTGTAGAGAATAGTAGCACATTTTGGAAATGC
 AGTCCGAAGTCGCAGAGAGCGCTGGTCTATTGGCAATTCAGAGGCGAAATGAAGAGCGAA
 AAGAAGAGATCAGAGTGGATGATCATATCATCAGGACAGATCAAGGCCTTCTGCTACGTAGT

FIG. 1A

CTACAACAGAAGGATTGAGGCAATTACCTCTGCCATGCGGTGGAACATGGGTTCATACAAAC
TCTTCTTAAGGTAACCCTGGAAGTCATTGACACAGAGCATTTGGAAGAACTTCTTCATAAAGA
TGATGATGGAGATGGCTCTAAGACCAAAGAAATGTCCAATAGCATGACACCTAGCCAGAAGG
TCTGGTACAGAGACTTCATGCAGCTCATCAACCACCCCAATCTCAACACGATGGATGAGTTC
TGTGAACAAGTTTGGAAAAGGGACCGAAAACAACGTCGGCAAAGGCCAGGACATACCCCAG
GGAACAGTAACAAATGGAAGCACTTACAAGAAAATAAGAAAGGTAGAAACAGGAGGACCCA
CGAATTTGAGAGGGCACCCAGGAGTGTCTGAGCTGCATTACCTCTAGAAACCTCAAACAAGT
AGAACTTGCCTAGACAATAACTGGAAAAACAAATGCAATATACATGAACTTTTTTCATGGCA
TTATGTGGATGTTTACAATGGTGGGAAATTCAGCTGAGTTCACCAATTATAAATTAATCCA
TGAGTAACTTTCCTAATAGGCTTTTTTTCCTAATACC (SEQ ID NO:1)

FIG. 1B

GACAACAGGTAGAAAAATTCCTGGGCTCAGGCTGGAGTGACACCCTTTTCTTCCCTAACAT
CTTCTACTCAGATACCTAAATTTAAGATTCAGGACAGCTGTCCCAACTCTTACCATGTCTTT

TATACTTGCTCCTTAACTTGCCCAACCTGTAGGCTATCTCATTTTCTCGCTTCACTCTGCAA
GGTTTATAACATGATGAATTTAAATAC (SEQ ID NO:2)

FIG. 2B

GAATTCTCGAGCTCGTCGACCACGCCCTCCTTGTGCAAGAACTCTGAGCCCCAGGTGCAGG
 AGGCTGAGGCCTGCAGAGAGACTTGCAGAGAGACCCAGCAAGCCATGGTGTTCATGGA
 GATGTGAGGGTACTTACTGGGGCTCGAGGAACATCCTGAAGCTGTGGGTCTGGACACTGCT
 CTGTTGTGACTTCCTGATACACCATGGAACCTCACTGTTGGACTTACCATTATTCTGAAAAGCC
 CATGAACTGGGAAAATGCTAGAAAGTTCTGCAAGCAAAATTACACAGATTTAGTCGCCATAC
 AAAACAAGAGAGAAATTGAGTATTTAGAGAATACATTGCCCAAAGGCCCTTATTACTACTGGA
 TAGGAATCAGGAAAATTGGGAAAATGTGGACATGGGTGGGAACCAACAAAACCTCTCACTAAA
 GAAGCAGAGAACTGGGGTGTCTGGGGAGCCCAACAACAAGAAGTCCAAGGAGGACTGTGTG
 GAGATCTATATCAAGAGGGAACGAGACTCTGGGAAATGGAACGATGACGCCTGTCACAAAC
 GAAAGGCAGCTCTCTGCTACACAGCCTCTTGCCAGCCAGGGTCTTGCAATGGCCGTGGAGA
 ATGTGTGGAACTATCAACAATCACACGTGCATCTGTGATGCAGGGTATTACGGGCCCCAGT
 GTCAGTATGTGGTCCAGTGTGAGCCTTTGGAGGCCCTGAGTTGGGTACCATGGACTGCAT
 CCACCCCTTGGGAACTTCAGCTTCCAGTCCAAGTGTGCTTTCAACTGTTCTGAGGGAAGAG
 AGCTACTTGGGACTGCAGAAACACAGTGTGGAGCATCTGGAACTGGTCATCTCCAGAGCC
 AATCTGCCAAGTGGTCCAGTGTGAGCCTTTGGAGGCCCTGAGTTGGGTACCATGGACTGC
 ATCCACCCCTTGGGAACTTCAGCTTCCAGTCCAAGTGTGCTTTCAACTGTTCTGAGGGAAG
 AGAGCTACTTGGGACTGCAGAAACACAGTGTGGAGCATCTGGAACTGGTCATCTCCAGAG
 CCAATCTGCCAAGAGACAAACAGAAGTTTCTCAAAGATCAAAGAAGGTGACTACAACCCCT
 CTTCAATCCTGTAGCCGTCATGGTCACCGCATTCTCGGGGCTGGCATTCTCATTTGGCTGG
 CAAGGCGGTTAAAAAAGGCAAGAAATCTCAAGAAAGGATGGATGATCCATACTGATTCATC
 CTTTGTGAAAGGAAAGCCATGAAGTGCTAAAGACAAAACATTGGAAAATAACGTCAAGTCCT
 CCCGTGAAGATTTTACACGCAGGCATCTCCACATTAGAGATGCAGTGTTTGCTCAACGAAT
 CTGGAAGGATTTCTTCATGACCAACAGCTCCTCCTAATTTCCCCTCGCTCATTTCATCCCTTA
 ACCCTATCCCATAATGTGTGTCTATACAGAGTAGTATTTTATCATCTTTTCTGTGGAGGAACA
 AGCAAAAGTGTTACTGTAGAATATAAAGACAGCTGCTTTTACTCTTTCCTAACTCTTGTTTCCT
 AGTTCAATTCAGC³ACAGAAGCTAATGCCAAACACAGTGAAAATATGATCCATGAGTAATTGGA
 AACTCAGACTCCTTGCGCATAGTACGTACCCTATGTAACATCGACAAAAATCTTTCATTTCCA
 CCTCCAAAGAACAGTGCTCTATTCAAGTTGGGAAAGTCCTACTTCCTCTGTAGACCCACTAT
 CTGTGAGTGACAGCCACTGTAGCTGTTACATTAACCTTCCCCATCTCCTTTTCTAGGAGA
 ATAATTCACACACTGCACCCCATGATGGCCACCAACATCAAAGAAGGGAAAATCTCCTGC
 ATTGAGTTTTAGTTTTGAGTTTTCCCTTCTCTTTATTAGATCTCTGATGGTTCCTTGAAGTCAG
 TGTCTGATGATTATTAATAGTTAATGATAACACAACCCACTCTCTTGGAGCTGATGTTATGAA

FIG. 2A

GTCCGACCCACGCGTCCGCAGACCTAGTAGCTGTGGAAACCATGGCCCTGAGTGTGTCATGTGT
CTGGGCGCTTGCCCTGCTTGGGGTCCTGCAGAGCCAGGCCCAGGACTCAACTCAGAACTTGA
TCCCTGCCCCATCTCTGCTCACTGTCCCCCTGCAGCCAGACTTCCGGAGCGATCAGTTCCG
GGGCAGGTGGTACGTTGTGGGCCTGGCAGGCAATGCGGTCCAGAAAAAACAGAAGGCAG
CTTTACGATGTACAGCACCATCTATGAGCTACAAGAGAACAATAGCTACAATGTCACCTCCAT
CCTGGTCAGGGACCAGGACCAGGGCTGTCGCTACTGGATCAGAACATTTGTTCCAAGCTCC
AGGGCTGGCCAGTTCCTCTGGGAAATATGCACAGGTATCCTCAGGTACAGAGCTACAATG
TGCAAGTGGCCACCACGGACTACAACCAGTTCGCCATGGTATTTTTCCGAAAGACTTCTGAA
AACAAGCAATACTTCAAAATTACCCTGTATGGAAGAACCAAGGAGCTGTCCCCTGAACTGAA
GGAACGTTTCACCCGCTTTGCCAAGTCTCTGGGCCTCAAGGACGACAACATCATCTTCTCTG
TCTGTCTGCCACTCCATCTTTCCTGTTGCCAGAGAGCCACCTGGCTGCCCCACCAGCCACC
ATACCAAGGAGCATCTGGAGCCTCTTCTTATTTGGCCAGCACTCCCCATCCACCTGTCTTAA
CACCACCAATGGCGTCCCCTTTCTGCTGAATAAATACATGCCCCCAAAAAAAAAAAAAAAGG
GCGGCCGC (SEQ ID NO:3)

FIG. 3A

MALSVMLGLALLGVLQSQAQDSTQNLIPAPSLTVPPLQPDFRSDQFRGRWYVGLAGNAVQK
KTEGSFTMYSTIYELQENNSYNVTSILVRDQDQGCRYWIRTFVPSSRAGQFTLGNMHRYPQVQS
YNVQVATTDYNQFAMVFFRKTSENKQYFKITLYGRTELKSPELKERFTRFAKSLGLKDDNIIFSVC
LPLHLSCCQRATWLPHPQPYQGASGASSYLASTPHPPVLTTPPMASPF (SEQ ID NO:4)

FIG. 3B

CCCCTTTTGGTTTTTGTCTATCGACCCTAACAAAGCTTAGTAATCGATGCCACTCGAGGCCAA
 GAATTCATTACGAGCCTGAGCTCCTTCGGCTTTTTCCCCCTTTTGCATCTTGTTTCCCGGGA
 TACCTGCAACTCAAGGATGGATGCCCTGAGACTGGCAAATTCAGCTTTTGCTGTTGACTTGT
 TCAAACAACATATGTGAAAGGGACCCAGCAGGAAACATTCTCTTCTCTCCAATATGCCTCTCTA
 CTTCTCTGTCCCTTGCGCAAGTGGGCACCAAAGGCGACACAGCAAATGAAATTGGACAGGT
 CCTTCATTTTGAGAATGTCAAAGATGTACCCTTTGGGTTTCAAACAGTCACTTCTGATGTTAA
 TAAGCTCAGTTCTTTTTACTCTTTGAAACTTGTCAAGCGACTCTACATAGACAAATCTCTGAAC
 CCTTCTACAGAATTTATCAGTTCTACCAAAGACCATATGCAAAAGAATTGGAAACTGTTGAC
 TTCAAAGACAAACTGGAAGAAACGAAAGGTCAAATTAACAGCTCCATTAAGGAGCTCACAGA
 TGGCCACTTTGAGGACATTTTGTGAGAGAACAGTATAAGTGACCAGACCAAATCCTTGTGG
 TTAATGCTGCCTACTTTGTTGGAAAGTGGATGAAGAAATTTCCGGAATCAGAAACAAAAGAAT
 GTCCTTTCAGAATCAGCAAGACAGACACCAAACCCGTACAAATGATGAATCTTGAGGCCACT
 TTCTGCTTGGGTAACATTGATGACATCAGCTGTAAGATCATAGAACTTCCTTCCAGAATAAG
 CATCTGAGTATGCTCATTGTGCTCCCCAAGGACGTGGAGGATGAGTCCACAGGCCTGGAGA
 AGATTGAACAGCAACTCAACCCAGAAACATTGTTACAGTGGACCAACCCCAAGTACCATGGCC
 AATGCCAAAGTCAAACCTTCCCTCCCAAAGTTTAAGGTAGAAAAGATGATTGATCCCAAGGCT
 AGTCTGGAAAGCCTAGGGCTGAAAAGTCTCTTCAATGAAAGTACATCGGATTTCTCTGGAAT
 GTCAGAGACCAAGGGAGTGTCCCTGTCAAATGTGATTCATAGAGTATGCCTAGAAATAACCG
 AAGATGGTGGTGAGTCCATCGAGGTGCCAGGGTCCCGGATCTTACAGCACAAGGATGAATT
 CAATGCTGACCATCCATTTATTTATATCATTAGACACAACAAAACCTCGAAACATCATTTTCTTT
 GGCAAATCTGTTCTCCTTAGCTGGCAGGGCCTTGCCAAGTCTCAGGGAACTTGTCTGTAGT
 CGCAGAGCTCTGTAACTTTGTATCCAGACAATCACTTTCTATACAATAAATTGTAAATGTTG
 CTGAAAAAAAAAAAAAAAAAAAAAAAAA (SEQ ID NO:5)

FIG. 4

GGTGGAGACTAAATATAATCTTTTATTTTATCGATGTTAACAAGCTTAGTAATCGATGCCACG
TCGAGGGGTGTCGACCCACGCGTCTCGCTTGCCTGTTCCCTTTCCACGCATTTTCCAGGATA
ACTGTGACTCCAGGCCCCGCAATGGATGCCCTGCAACTAGCAAATTCGGCTTTTGCCGTTGAT
CTGTTCAAACAACTATGTGAAAAGGAGCCACTGGGCAATGTCCTCTTCTCTCCAATCTGTCT
CTCCACCTCTCTGTCACTTGCTCAAGTGGGTGCTAAAGGTGACACTGCAAATGAAATTGGAC
AGGTTCTTCATTTTGAAAATGTCAAAGATGTACCCTTTGGATTTCAAACAGTAACATCGGATG
TAAACAACTTAGTTCCTTTTACTCACTGAACTAATCAAGCGGCTCTACGTAGACAAATCTC
TGAATCTTTCTACAGAGTTCATCAGCTCTACGAAGAGACCCTATGCAAAGGAATTGGAACT
GTTGACTTCAAAGATAAATTGGAAGAAACGAAAGGTGAGATCAACAACCTCAATTAAGGATCTC
ACAGATGGCCACTTTGAGAACATTTTAGCTGACAACAGTGTGAACGACCAGACCAAAATCCT
TGTGGTTAATGCTGCCTACTTTGTTGGCAAGTGGATGAAGAAATTTCTGAATCAGAAACAAA
AGAATGTCCTTTCAGAGTCAACAAGACAGACACCAAAACCAGTGCAGATGATGAACATGGAGG
CCACGTTCTGTATGGGAAACATTGACAGTATCAATTGTAAGATCATAGAGCTTCCTTTTCAA
ATAAGCATCTCAGCATGTTTCCTACTACCCAAGGATGTGGAGGATGAGTCCACAGGCTTG
GAGAAGATTGAAAAACAACTCAACTCAGAGTCACTGTCACAGTGGACTAATCCCAGCACCAT
GGCCAATGCCAAGGTCAAACCTCTCATTCCAAAATTTAAGGTGGAAAAGATGATTGATCCCA
AGGCTTGTCTGGAAAATCTAGGGCTGAAACATATCTTCAGCGAAGACACATCTGATTTCTCT
GGAATGTCAGAGACCAAGGGAGTGGCCCTATCAAATGTTATCCACAAAGTGTGCTTAGAAAT
AACTGAAGATGGTGGGGATTCCATAGAGGTGCCAGGAGCACGGATCCTGCAGCACAAGGAT
GAATTGAATGCTGACCATCCCTTTATTTACATCATCAGGCACAACAAAACCTCGAAACATCATT
TTCTTTGGCAAATCTGTTCTCCTTAAGTGGCATAGCCCATGTTAAGTCCTCCCTGACTTTTC
TGTGGATGCCGATTTCTGTAACTCTGCATCCAGAGATTCATTTTCTAGATACAATAAATTGC
TAATGTTGCTGGATCAGGAAGCCGCCAGTACTTGTATATGTAGCCTTCACACAGATAGACC
TTTTTTTTTTTTTCCAATTCTATCTTTGTTTCTTTTTTCCCATAAGACAATGACATACGCTTTT
AATGAAAAGGAATCACGTTAGAGGAAAAATATTTATTCATTATTTGTCAAATTGTCCGGGGTA
GTTGGCAGAAATACAGTCTTCCACAAAGAAAATTCCTATAAGGAAGATTTGGAAGCTCTTCTT
CCCAGCACTATGCTTTCTTCTTTGGGATAGAGAATGTTCCAGACATTCTCGCTTCCCTGAAA
GACTGAAGAAAGTGTAGTGCATGGGACCCACGAACTGCCCTGGCTCCAGTGAAACTTGGG
CACATGCTCAGGCTACTATAGGTCCAGAAGTCCTTATGTTAAGCCCTGGCAGGCAGGTGTTT
ATTAAAATTCTGAATTTTGGGGATTTTCAAAGATAATATTTTACATACACTGTATGTTATAGAA
CTTCATGGATCAGATCTGGGGCAGCACCCCTATAAATCACCACCTTAATATGCTGCAACAAAA
TGTAGAATATTAGACAAAATGGATACATAAAGACTAAGTAGCCCATAGGGGTCAAATTTTG
CTGCCAAATGCGTATGCCACCAACTTACAAAAACACTTCGTTGCGAGAGCTTTTTCAGATTGT

FIG. 5A

GGAATGTTGGATAAGGAATTATAGACCTCTAGTAGCTGAAATGCAAGACCCCAAGAGGAAGT
TCAGATCTTAA (SEQ ID NO:6)

FIG. 5B

	Semaphorin D	Maspin	B94	mel-14 Antigen	24p3	Proliferin
Expression in EMT6 tumors	Up-regulated in CDDP resistant tumor	Down-regulated in CDDP resistant tumor	Up-regulated in CDDP resistant tumor	Up-regulated in CDDP resistant tumor	Up-regulated in CDDP resistant tumor	Up-regulated in CDDP resistant tumor
Expression in EMT6 cell lines	Remain up-regulated in CDDP resistant cell line to passage 13 (passage 3, 6, 10, and 13 checked)	Remain down-regulated in CDDP resistant cell line to passage 3	Remain up-regulated in CDDP resistant cell line to passage 10	Remain up-regulated in CDDP resistant cell line to passage 10	Remain up-regulated in CDDP resistant cell line to passage 10	Remain up-regulated in CDDP resistant cell line to passage 10
Expression in multi-cell line pairs (A2780, UCLA, U937, HL60, SCC25 pairs)	Highly expressed in SCC25 CDDP cell line, not significant-ly expressed in other cell line pairs.	Highly expressed in SCC25 wild type cell line (and HL60 AD cell line), not significantly expressed in other cell line pairs.	Differently expressed in HL60 and U937 cell lines (lower in resistant cell line).	Differently expressed in HL60 cell lines (high in HL60 and HL60Rev, low in HL60AD)	Slightly up-regulated in SCC25 CDDP cell line; not significantly differentially expressed in other cell line pairs.	Slightly up-regulated in A2780AD and SCC25 CDDP cell lines; Not significantly differentially expressed in other cell line pairs.

FIG. 6